

The Woman's College of
The University of North Carolina
LIBRARY



CQ

No. 375

COLLEGE COLLECTION

Gift of
Betty Shealy Rudisill

A COMPARISON OF VALUES OF HIGH SCHOOL
SENIORS ENROLLED IN A PUBLIC HIGH
SCHOOL, A ROMAN CATHOLIC HIGH SCHOOL
AND A PROTESTANT HIGH SCHOOL

by

Betty Shealy Rudisill

6870

A Thesis Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Master of Science in Home Economics

Greensboro
May, 1964

Approved by

Irwin V. Perry

Director

APPROVAL SHEET

This thesis has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro, Greensboro, North Carolina.

Thesis
Director

Irwin V. Sperry

Oral Examination
Committee Members

Hildegarde Johnson

Marian Franklin

Daniel F. Hobbs Jr.

270401

April 1, 1964

Date of Examination

RUDISILL, BETTY SHEALY. A Comparison of Values of High School Seniors Enrolled in a Public High School, a Roman Catholic High School and a Protestant High School. (1964) Directed by: Dr. Irwin V. Sperry.

pp. 48.

It was the purpose of this study to determine if any differences exist in the values of high school seniors according to sex and type of high school in Raleigh, North Carolina. Other studies concerning the values of high school students indicated that values varied according to sex and the type of high school attended. These studies were done in other geographical locations.

The Allport-Vernon-Lindzey Study of Values was given to high school seniors of both sexes. The subjects were males and females enrolled in a public high school, a Roman Catholic high school and females in a protestant high school. All schools were located in Raleigh, North Carolina.

The six values used in the Study of Values are the theoretical, economic, social, aesthetic, political and religious.

The means and standard deviations were found for each value for each group according to sex and type of high school attended. The ranges in scores were noted.

Male subjects as a group had higher means on the theoretical, economic and political scales than female subjects. Female subjects as a group had higher means on the aesthetic, social and religious scales than male subjects. Standard deviations indicated that females were a more homogeneous group than males.

Male subjects from the public high school had higher mean scores on the theoretical and economic scales than males from the Roman Catholic high school. Male subjects from the Roman Catholic high school had higher

mean scores on the social and economic scales than male subjects from the public high school. The mean scores for both groups on the aesthetic and political scales were similar. Standard deviations indicated that male subjects were a homogeneous group as far as their values are concerned.

The mean scores for females on all scales were similar. The standard deviations would indicate that the females from the three schools were not as homogeneous as male subjects as far as their values are concerned.

Findings in this study were similar to findings of other studies using high school seniors and the Allport-Vernon-Lindzey Study of Values.

ACKNOWLEDGMENT

To Dr. I. V. Sperry, chairman of the committee, Dr. Hildegarde Johnson, Dr. Marian Franklin and Dr. Daniel F. Hobbs, Jr., the author expresses appreciation for the inspiration, encouragement and assistance during the author's graduate study.

The author also expresses appreciation to the Needham B. Broughton High School, Cardinal Gibbons High School and Peace Junior College High School students who served as subjects.

TABLE OF CONTENTS

CHAPTER	PAGE
I. THE RESEARCH PROBLEM	1
Introduction	1
Related Literature	2
Statement of Problem	8
Summary	8
II. PROCEDURES	10
Description and Selection of the Subjects	10
Description of the public high school	10
Description of the Roman Catholic high school	11
Description of the protestant high school	11
Data Collection	12
The measuring instrument	12
Construction and scoring of measuring instrument	13
Reliability of instrument	16
Item analysis	16
Limitations of measuring instrument	17
Administration of the instrument	18
Data Analysis	18
Summary	18
III. FINDINGS AND INTERPRETATIONS	20
Sex Differences	20

CHAPTER	PAGE
School Differences	23
Males	23
Females	27
Interpretations	30
Sex differences males	30
School differences	31
Females	32
Summary	32
Sex differences	32
School differences	33
IV. SUMMARY AND CONCLUSIONS	34
The Research Problem	34
Procedures	35
Findings	36
Conclusions	37
Recommendations for Further Study	37
BIBLIOGRAPHY	40
APPENDIX	43

LIST OF TABLES

TABLE	PAGE
I. Means and Standard Deviations of Value	
Scores by Sex	21
II. Differences Between Mean Value Scores of	
Female High School Students as Compared	
with Male High School Students	22
III. Means and Standard Deviations of High School	
Senior Males by Type of School	24
IV. Differences Between Mean Value Score of Roman	
Catholic High School Males as Compared with	
Public High School Males	25
V. Means and Standard Deviations of High School	
Senior Females by Type of School	28
VI. Differences Between Mean Value Scores of Roman	
Catholic High School and Protestant High School	
Females as Compared with Public High School	
Females	29
VII. Scores for the Public High School - Males	43
VIII. Scores for Public High School - Females	44
IX. Scores of Roman Catholic High School Males	45
X. Scores of Roman Catholic High School Females	46
XI. Scores of Protestant High School Females	47

CHAPTER I

THE RESEARCH PROBLEM

I. INTRODUCTION

Adolescence is a period in the life of the individual when values are being formed. Adolescents' values are influenced by the home, school, church and community in which they live, as well as by the variety of other factors such as mass media. Values are being challenged and values are changing.¹ Because of these challenges and changes, it is important for those who influence the value patterns of students in high school to have some understanding of adolescents in order that they may better guide the growth and development of these individuals.

According to research, which will be subsequently mentioned, in other sections of the country the value patterns of adolescents seem to relate to sex and type of high school attended. Is this true for North Carolina and especially for Raleigh, North Carolina? It was the purpose of this study to determine the value patterns of a group of high school seniors of both sexes enrolled in three types of high schools in Raleigh, North Carolina.

¹Robin Williams, Jr., American Society (New York: Alfred A. Knopf, 1960), p. 399.

II. RELATED LITERATURE

Havighurst defined a value as follows: "A value is an objective or state of affairs which is desired."²

According to Williams, a value concerns goals of action and is used in the selection of the means for obtaining these goals. The values by which a person lives may be identified by the choices the individual makes in the selection of activities, friends and solutions to problems. Values will influence the interests of the individual. Value patterns will determine the rewards for good deeds and the punishments for crimes administered by a group or society. Dominant values of a system can be determined by extensiveness of the value in the system, the duration of the value, the intensity with which it is sought and maintained and the prestige which the value carries. The so-called American value system is characterized by diversity and changes in values. According to Williams, the major value-orientation found in America includes achievement and success, activity and work, moral orientation, efficiency and practicability, progress, material comfort, equality, freedom, external conformity, science and secular rationality, nationalism and patriotism, democracy, individual personality, racism and related group-superiority themes.³ Williams further points out that there are three major assumptions which are basic to the classification system of value orientation. These major assumptions are: (1) there is a limited number of human problems;

²Robert J. Havighurst, Developmental Tasks and Education, (New York: Langmans, Green and Company, 1952), pp. 62-63.

³Williams, op. cit., pp. 397-470.

(2) for these problems there are various solutions to be used in solving the problem; and (3) the solution used may or may not be approved by society.⁴ In all societies there are always variants who will solve their problems in a way which society disapproves. The value orientations of a society is a factor which influences basic values of the individuals.⁵ The methods which the adolescent learns to use to solve his problems will be related to his value orientation.

Prince examined what he labeled "confusing value standards" which are a part of the American society. He investigated the values of students enrolled in a public high school, a religious high school, a private high school and values as they varied by age in the population used in the study. To measure values in this study, Prince constructed and used the Differential Values Inventory. This inventory was constructed around the traditional and emergent framework. The traditional values were defined as Puritan morality, individualism, work-success ethic and future time orientation; emergent values were defined as relativistic moral attitudes, conformity, sociability and present time orientation. The test was given to principals, teachers, freshmen and seniors in 22 high schools. There were sixteen public high schools, two private high schools and four religious high schools represented.

Findings showed that the public high school students had values between the emergent and traditional framework. The private high

⁴Ibid., pp. 415-468.

⁵Florence R. Kluckhohn, "Family Diagnosis: Variations in Basic Values of Family Systems," Social Casework, 39, (February-March, 1958), pp. 63-72.

school students had values in the emergent framework. The religious high school students had values in the traditional framework. Freshmen and seniors in the same school had similar value patterns. Students and teachers in the same schools had similar value patterns. Teachers and principals over fifty years of age had a traditional value pattern; those under thirty years of age had value patterns in the emergent framework. Value patterns differed in the public high schools located in an industrial area from those public high schools located in a suburban area.

Prince interpreted these findings as follows: (1) public high schools represent a wide cross-section of social, economic and religious backgrounds; (2) private high school students have opportunities for personal expression and encouragement of social development; and (3) religious high school students have received emphasis on the future rather than on the present, and they receive moral training and come from religious homes. Prince believed that these findings indicate that the schools can re-enforce the value patterns of students.⁶

In another study, Prince used the Differential Values Inventory

to show relations between value patterns of high school students and certain of their personal characteristics, their career choices and their academic achievements.⁷

Prince was of the opinion that value patterns in America are shifting from a traditional framework to an emergent framework and that this

⁶Richard Prince, "Student Value Judgements Do Differ in Public, Religious and Private Schools," Phi Delta Kappan, 41 (May, 1959), 305-307.

⁷Richard Prince, "Values, Grades, Achievement and Career Choices of High School Students," The Elementary School Journal, 60 (April, 1960), 376.

shifting affects the students' character, career choices and academic achievement. As in the study previously mentioned, the groups were freshmen, seniors and teachers from public, private and religious high schools. Findings, in addition to those reported in the previous study included: (1) academically superior students in the religious and public high school had more traditional value patterns than less superior students; (2) students in the higher socio-economic group had higher grades and more traditional value patterns than those of a low socio-economic group; (3) those planning to attend college had a more traditional pattern of values than those who did not plan to go to college. Prince believed that these findings implied that the high school teacher must emphasize the work-success ethic, achievement, individualism and de-emphasize sociability and conformity.⁸

Using subjects from a London, England, coeducational school, Morris reviewed records of responses made by subjects to fourteen problem situations presented during the course of individual interviews. The objective was to determine the development of adolescent value judgments. It was concluded that: a marked discrepancy existed between what the adolescent thought should be done and what he actually would do in certain situations; changes in girls' values began slightly ahead of boys; with increasing age there was a slow decline in value-judgment based upon self-interest and this decline was most marked on

⁸Ibid., pp. 376-382.

the level of actually expected behavior; and that with increased age the value-judgment becomes more complex.⁹

The relationship between personal values and scholastic achievement was studied by Battle. The Allport-Vernon-Lindzey Study of Values, the Science Research Associates Youth Inventory and other value tests were used to construct a list of values to be used by the pupils to describe their values. The pupils' teachers used this same list to describe their values. It was predicted that pupils receiving high grades from a teacher would have value patterns more like the teacher ideal than would pupils with low grades. There was a strong correlation between the value patterns of pupils and teachers. Battle felt it reasonable to conclude within the limits of the data collected that the degree of similarity between teacher ideal and pupil value patterns tended to be directly related to the level of the pupil's achievement as rated by the teacher in terms of school marks. Four questions were raised by Battle for further study:

- (1) What can be done to reduce the effect of teacher bias in marking pupils?
- (2) How can the teacher facilitate learning for the pupil whose value pattern tends to be different from the teacher ideal?
- (3) Can educators determine the relative degree to which pupils should cherish certain activities and conditions?
- (4) How can teachers aid the development of optimum value patterns for pupils?¹⁰

⁹J. F. Morris, "Symposium: The Development of Moral Values in Children - II Development of Adolescent Value-Judgment," British Journal of Educational Psychology, 28 (February, 1958), 1-14.

¹⁰Haron J. Battle, "Relations Between Personal Values and Scholastic Achievement," Journal of Experimental Education, 26 (September, 1957), 27-41.

The values and attitudes of the adolescents showed little change between 1939 and 1952 according to a study made by Nelson and Ramsey. Twenty-two items dealing with family adjustments from the Minnesota Scale for the Survey of Opinions had been used in 1939 and were used again in the 1952 study. Groups of high school students in the junior and senior classes from the same high school were used in both studies. The findings indicated that few changes had occurred in values and attitudes toward family relations between 1939 and 1952. One difference noted was that girls in the 1952 sample had less sense of obligation to the family than did those in the 1939 sample group.¹¹

Traxler and Vicchione studied students from a comprehensive high school in a medium size city, a large metropolitan high school, a high school in a residential suburb, a boys' academic high school in a large city, a girls' academic high school in the same city, and a large co-educational boarding school as subjects for a study concerning values. The Allport-Vernon-Lindzey Study of Values was the measuring device. The findings showed that the means and standard deviations of the scores of the twelfth grade students and college students were consistently close on each scale. This would indicate that although the Study of Values is intended for use with college students, it is suitable for use with high school seniors. As a group, males had higher means on the theoretical, economic and political scales than females. On the aesthetic, social and religious scales, females had higher means than males. Substantial differences between the means and standard

¹¹Lowry Nelson and Charles E. Ramsey, "Changes in Values and Attitudes Toward the Family," American Sociological Review, 21 (November, 1956), 605-609.

deviations for the different schools suggest the relationship of different environments to the value scores.¹²

III. STATEMENT OF PROBLEM

The studies reviewed showed that the values of boys and girls differed and that their values varied according to the type of school they attended.¹³ The groups used in the studies were from several geographical locations, but none were from North Carolina. Would the value scores of high school seniors in Raleigh, North Carolina, differ according to sex and the type of school attended?

It was the purpose of this study to answer the following questions relative to subjects in three Raleigh, North Carolina, high schools:

1. What differences exist in the values of high school senior males and females?
2. What differences exist in the values of high school seniors enrolled in a public high school, a Roman Catholic high school and a protestant high school?

IV. SUMMARY

Some persons claim that value patterns in America are being challenged and are undergoing changes. It would seem necessary that those who influence the values of the adolescent should have a better understanding of his present values.

¹²Arthur E. Traxler and Nicholas Vicchione, "Scores of Seniors in Six Secondary Schools on the Allport-Vernon-Lindzey Study of Values," Educational Records Bulletin, 74 (July, 1959), 75-89.

¹³Traxler and Vicchione, op. cit., p. 75.

A value may be an objective or goal for a person's life. Values may concern the individual's goal of action and will probably influence the selection of the means for obtaining these goals.

Studies concerned with values of high school students showed: that the values of boys and girls differed; that students enrolled in different schools had different value patterns; and that the value patterns of teachers and students are similar. The groups used in these studies were from states other than North Carolina.

It was the purpose of the present study to compare values of high school students who would be expected to have different value orientations. The subjects used were high school seniors enrolled in a public high school, a Roman Catholic high school and a protestant high school in Raleigh, North Carolina.

CHAPTER II

PROCEDURES

All subjects of this study were enrolled in the senior class of their respective high schools. Their ages ranged from sixteen to eighteen. All schools were located in Raleigh, North Carolina.

The measuring instrument used was the Allport-Vernon-Lindzey Study of Values.

I. DESCRIPTION AND SELECTION OF THE SUBJECTS

Description of the Public High School. Needham B. Broughton High School was the largest senior high school in Raleigh. Although technically integrated at the time of the study it was the only predominantly white public high school having a senior class. There were approximately 2,000 students enrolled during the 1962-1963 school year in grades ten through twelve. Some examples of courses offered were English, art, physics, chemistry, journalism, band, homemaking and foreign languages. Students also had an opportunity to participate in a wide variety of extra-curricular activities including sports, drama, service groups and other clubs. There were 577 seniors enrolled in the senior class of 1963. For the purpose of this study, the largest senior homeroom in the school was selected. Students were assigned to homerooms from an alphabetical listing of all seniors. There were no Negro students in this homeroom. On the day the test was administered 19 girls and 13 boys were present.

Description of the Roman Catholic High School. Cardinal Gibbons High School was the Roman Catholic high school used in the study. During the 1962-1963 school year there were 140 students enrolled in grades nine through twelve. Classes in religion were taught each day by priests to all students. Other classes were taught by nuns with the exception of the coach who taught physical education and a graduate student from a nearby state university who taught public speaking. The school enrollment included both white and Negro students, Roman Catholics and Protestants. Most students were from Raleigh but some commuted daily from nearby communities. Subjects taught in the school were religion, English, mathematics, science, foreign languages, history, speech and typing. There were some extra-curricular activities. There were 34 students in the senior class of 1963. All were present the day the test was administered. One test was marked incorrectly and had to be discarded. This left a total of 12 boys and 19 girls participating in the study. Of this number, there were five Negro girls in the group.

Description of the Protestant High School. The High School Department of Peace Junior College served as the protestant high school in the study. Peace Junior College is sponsored by the First Presbyterian Church of Raleigh, North Carolina. The school was not coeducational nor was it racially integrated. Fifty-five students were enrolled in the 1962-1963 school year. English, mathematics, science, foreign languages, art, typing, music and physical education were the courses offered in the high school department. There were some extra-curricular activities. There were 29 girls in the senior class. One girl was absent the day the test was administered; one test was marked incorrectly and was discarded.

II. DATA COLLECTION

The Measuring Instrument. The 1951 Revision of the Allport-Vernon-Lindzey Study of Values is an instrument for measuring the dominant values of an individual.¹⁴ The inventory, first published in 1931, is considered one of the better instruments of its type.¹⁵

The six values classifications used in the test are theoretical, economic, aesthetic, social, political and religious. These were drawn from Spranger's Types of Men.¹⁶

A person scoring high on the theoretical scale is characterized by an interest in the discovery of the truth and an effort to systematize his knowledge.

A high score on the economic scale indicates that the individual is interested in what is useful.

A high score on the aesthetic scale indicates an interest in form and harmony. The person scoring high on this scale need not be either an artist or an author. He judges each experience from the standpoint of grace, symmetry or fitness.

A love of people characterizes the individual scoring high on the social scale. He is kind, unselfish and sympathetic to others.

A person scoring high on the political scale may not be active in politics. His main interest is in power. He tends to be a leader. Personal power, influence and fame are important to him.

¹⁴Gordon Allport, Philip Vernon and Goodner Lindzey, Manual - Study of Values (Boston: Houghton Mifflin Company, 1951), pp. 4-5.

¹⁵Traxler and Vicchione, op. cit., p. 75.

¹⁶Edward Spranger, Types of Men, trans. P. J. W. Pigars (New York: Stechert-Hafner, Inc., 1928), pp. 109-246.

Unity is of great importance to the person scoring high on the religious scale. He attempts to understand the cosmos as a whole. Frequently, he is mystical. He seeks to find the origin of the highest and most satisfying value experience.¹⁷

The 1951 Revision of the scale modernized some items, changed the scoring system, presented new norms and improved the reliability of the test as a whole.¹⁸

Construction and Scoring of Measuring Instrument. The scale consists of two parts. There are 30 questions in Part I, each having two alternatives. For each question, there are alternatives which total three points weighted according to the following directions as given in the scale:

DIRECTIONS: A number of controversial statements or questions with two alternative answers are given below. Indicate your personal preferences by writing appropriate figures in the boxes to the right of each question. Some of the alternatives may appear equally attractive or unattractive to you. Nevertheless, please attempt to choose the alternative that is relatively more acceptable to you. For each question you have three points that you may distribute in any of the following combinations.

- | | | | | | | |
|--|---|---|---|---|---|---|
| 1. If you agree with alternative (a) and disagree with (b), write 3 in the first box and 0 in the second box, thus | | | a | | b | |
| | | | 3 | | 0 | |
| 2. If you agree with (b); disagree with (a), write | a | | | b | | |
| | 0 | | | 3 | | |
| 3. If you have a slight preference for (a) over (b), write | | | | a | | b |
| | | | | 2 | | 1 |
| 4. If you have a slight preference for (b) over (a), write | | a | | | b | |
| | | 1 | | | 2 | |

¹⁷Allport, Vernon, and Lindzey, loc. cit.

¹⁸Ibid., p. 9.

Do not write any combination of numbers except one of these four. There is no time limit, but do not linger over any one question or statement, and do not leave out any of the questions unless you find it really impossible to make a decision.¹⁹

Part II consists of fifteen questions with four alternatives each. Ten points are assigned to each question which may be distributed as follows:

DIRECTIONS: Each of the following situations or questions is followed by four possible attitudes or answers. Arrange these answers in the order of your personal preference by writing, in the appropriate box at the right, a score of 4, 3, 2, or 1. To the statement you prefer most give 4, to the statement that is second most attractive, 3, and so on.

Example: If this were a question and the following statements were alternative choices you would place:

- 4 in the box if this statement appeals to you most.
- 3 in the box if this statement appeals to you second best.
- 2 in the box if this statement appeals to you third best.
- 1 in the box if this statement represents your interest or preference least of all.

		4		
	3			
				2
			1	

You may think of answers which would be preferable from your point of view to any of those listed. It is necessary, however, that you make your selection from the alternatives presented, and arrange all four in order of their desirability, guessing when your preferences are not distinct. If you find it really impossible to state your preference, you may omit the question. Be sure not to assign more than one 4, one 3, etc., for each question.²⁰

¹⁹Gordon Allport, Philip Vernon and Gardner Lindzey, Study of Values (Boston: Houghton Mifflin Company, 1951), p. 2.

²⁰Ibid., p. 7.

In Part I, the combination of $1\frac{1}{2}$ for each alternative may be used when there is no preference. In Part II, in the case of no preference, $2\frac{1}{2}$ is assigned to each alternative, but subjects are encouraged to indicate a choice.

Question fourteen consists of two forms; one is to be answered by males, the other by females.

The questions are based on familiar situations and were originally used with adults. Later the scale was used with adolescents. Part I consists of thirty questions, each having two alternatives with a total of sixty points. Part II consists of fifteen questions, each having four alternatives with a total of sixty points. In the scale, there is a total of 120 replies with twenty referring to each value.

Scores are computed by recording totals on each page in the spaces provided. Letters in each space indicate where each total is to be placed on the score sheet. The total score for each value must be corrected by the addition or subtraction of the correction figures as shown on the score sheet. These correction figures are used to equalize the popularity of the six values.²¹

Forty is the average score for all values.²² If a subject favors equally all six values, he would receive a sub-score of forty on each scale. If on the other hand, a subject were to score considerably higher than forty on one or a few scales he would have to score lower on the others. There is a total of 240 points to be divided among the six scales.

²¹Allport, Vernon, and Lindzey, *op. cit.*, p. 7.

²²*Ibid.*, p. 8.

Reliability of Instrument. Two methods used to establish the reliability were the split half method and test-retest method.

Using a sample group of 100 college students, the product-moment correlations were as follows:²³

	(N = 100)
Theoretical	.84
Economic	.93
Aesthetic	.89
Social	.90
Political	.87
Religious	.95

The test-retest was determined for two populations. Two groups of college students were given the test. The test was readministered to one group after a one month interval and to the other group after a two month interval. Correlation coefficients were computed and the results were:

	One Month Group 1951 (N = 34)	Two Month Group 1957 (N = 53)
Theoretical	.87	.85
Economic	.92	.84
Aesthetic	.90	.87
Social	.77	.88
Political	.90	.88
Religious	.91	.93

Item Analysis. Item analysis showed that each item was positively associated with the total score derived from other test items measuring the same value. A final analysis using 780 college students of both sexes showed a positive correlation for each item with the total score for its value, significant at .01 level of confidence.²⁴

²³Ibid., p. 9.

²⁴Ibid., pp. 9-10.

Limitations of Measuring Instrument. The Study of Values was designed primarily for use with college students and adults. Levy produced a less verbally complex form of the Study of Values. In the construction of the modification, all but one of the 45 items in the 1951 Revision were re-worded. A group of judges with similar backgrounds in psychology was given copies of the modified version and the six predominant personality types as they appeared in the Manual of Directions. They were given the two test forms with questions from both tests in mixed order. The judges then ascertained which type of person would answer each question with each alternative. They were also asked to match items in both forms. These judges were of the opinion that the revision was equivalent to the original form. The reading level for the 1951 Revision was placed at the twelfth grade level; the modified form at the seventh grade level. A group of high school students was divided into three groups: (1) high vocabulary group; (2) middle vocabulary group; and (3) low vocabulary group. The low vocabulary group made significantly different scores on the two forms; therefore, the forms were not equivalent for this group. The differences were attributed to their inability to understand all of the vocabulary of the 1951 Revision. The middle vocabulary group scored in the middle range on both forms of the Levy modification.²⁵

A lack of understanding of some of the questions may have had some effect on value scores of the present sample. The Levy modification

²⁵Jerome Levy, "Readability Level and Differential Test Performance: A Language Revision of the Study of Values," Journal of Educational Psychology, 49 (February, 1958), pp. 6-12.

was not used in the present study because the 1951 Revision was placed at the twelfth grade reading level.

Administration of the Instrument. Permission for administering the scales to the subjects was obtained by the investigator from the principals of Needham B. Broughton High School, Cardinal Gibbons High School and the president of Peace Junior College.

All tests were given by the investigator in each school within a two week period of time during May, 1963. Instructions for taking the test were given orally. There was no time limit for the test. After the subjects had completed the test, the investigator gave oral instructions for scoring, and the subjects scored their own tests. The investigator rechecked each scale for accuracy of scoring.

III. DATA ANALYSIS

The subjects were divided on the basis of sex and type of school attended. The means and standard deviations were found for each value for each group. The ranges of the scores were noted.

To determine if there were any differences in the scores of seniors by type of school attended, mean scores for male subjects from the public high school and the Roman Catholic high school were compared. The means for female subjects from the three schools were compared. The means for all male subjects and all female subjects were compared to determine the differences in mean scores according to sex.

IV. SUMMARY

Subjects used in this study were high school seniors of both sexes enrolled in a public high school, a Roman Catholic high school, and

females enrolled in a protestant high school. The Allport-Vernon-Lindzey Study of Values was the measuring instrument. The classifications of values used in this scale were the theoretical, economic, aesthetic, social, political, and religious. The subjects were divided on the basis of sex and type of school attended. The means and standard deviations were computed for each value for each group. Comparisons of the means and standard deviations were made on the basis of sex and the type of school.

CHAPTER III

FINDINGS AND INTERPRETATIONS

It was the purpose of the study to determine whether or not any differences existed in the values of (1) high school seniors of both sexes and (2) high school seniors enrolled in a public high school, a Roman Catholic high school and a protestant high school located in Raleigh, North Carolina. The Allport-Vernon-Lindzey Study of Values was the measuring instrument. All scores are given in the appendix.

I. SEX DIFFERENCES

The means and standard deviations for males and females are shown in Table I. It should be noted when one compares these findings that there were only 27 male subjects used in the study while there were 66 female subjects. Table II presents the deviations of mean value scores of females from mean scores for males.

The mean scores for male subjects on the theoretical, economic and political scales were higher than the mean scores for female subjects on these scales. The mean scores for female subjects on the aesthetic, social and religious scales were higher than the mean scores for male subjects on these scales. As indicated by Table II the greatest difference in mean scores was 6.6 points, with males scoring higher on the theoretical scale. The smallest difference was 3.7 points with males scoring higher on the political scale. Mean scores varied from

TABLE I
MEANS AND STANDARD DEVIATIONS OF
VALUE SCORES BY SEX

Sex	Number		Theoretical	Economic	Aesthetic	Social	Political	Religious
Males	27	M.	43.8	41.3	33.5	36.5	41.8	42.4
		S.D.	7.8	9.4	12.2	6.5	5.3	9.9
Females	66	M.	37.2	36.4	39.5	40.7	38.1	48.1
		S.D.	6.0	7.0	8.0	7.1	6.5	7.2

TABLE II

DIFFERENCES BETWEEN MEAN VALUE SCORES OF FEMALE
HIGH SCHOOL STUDENTS AS COMPARED WITH
MALE HIGH SCHOOL STUDENTS

Theoretical	*6.6
Economic	*4.9
Aesthetic	6.0
Social	4.2
Political	*3.7
Religious	5.7

An asterisk () indicates a mean score for males was higher than for females; females were higher in the remainder.

33.5 for males on the aesthetic scale to 48.1 for females on the religious scale.

Standard deviations on all scales except the social and political scales indicated that the female subjects were more homogeneous in their values than male subjects. According to standard deviations male subjects were more homogeneous than female subjects on the social and political scales. Standard deviations varied from 5.3 for males on the political scale to 12.2 for males on the aesthetic scale.

Ranges in scores varied from a low score of eighteen for male subjects on the aesthetic scale to a high of 63 for male subjects on the religious scale. Scores for female subjects ranged from nineteen on the social scale to 58 on the religious scale. Examples of ranges in scores for one scale are the scores from 21 to 63 for male subjects and scores for female subjects from 24 to 58 on the religious scale. On the same scale the standard deviation for males was 9.8; for females 7.2.

II. SCHOOL DIFFERENCES

Males. The means and standard deviations for 13 male subjects from a public high school and 14 male subjects from a Roman Catholic high school are shown in Table III. Table IV shows deviations of mean scores of public high school males as compared with the mean scores for Roman Catholic high school males.

Mean scores for male subjects from the public high school were higher on the theoretical, economic and aesthetic scales than mean scores for male subjects from the Roman Catholic high school. Mean scores for male subjects from the Roman Catholic high school were higher on the social and religious scales than mean scores for male subjects from the

TABLE III
MEANS AND STANDARD DEVIATIONS OF HIGH SCHOOL SENIOR
MALES BY TYPE OF SCHOOL

Type of School	Number		Theoretical	Economic	Aesthetic	Social	Political	Religious
Public	13	M.	47.5	43.1	34.1	33.3	42.0	40.4
		S.D.	7.2	8.6	8.6	4.1	5.0	11.4
Roman Cath- olic	14	M.	40.5	39.6	32.9	40.2	41.6	45.1
		S.D.	6.7	8.8	8.8	6.1	4.7	8.6

TABLE IV

DIFFERENCES BETWEEN MEAN VALUE SCORE OF ROMAN
CATHOLIC HIGH SCHOOL MALES AS COMPARED
WITH PUBLIC HIGH SCHOOL MALES

Theoretical	*7.0
Economic	*3.5
Aesthetic	*1.2
Social	6.9
Political	*0.4
Religious	4.7

An asterisk () indicates a mean score for public high school males was higher than for Roman Catholic high school males; Roman Catholic high school males were higher in the remainder.

public high school. The mean scores for the two groups on the political scale were similar. As shown in Table IV, the greatest difference in mean scores was seven with males from the public high school scoring higher on the theoretical scale. The smallest difference was .4 in favor of male subjects from the public high school on the political scale. Mean scores varied from 32.9 for male subjects from the Roman Catholic high school on the aesthetic scale to 47.5 for male subjects from the public high school on the theoretical scale.

Standard deviations indicate that male subjects from both high schools were about equally homogeneous, as far as their values are concerned, on the theoretical, economic, aesthetic and political scales. On the social scale, male subjects from the Roman Catholic high school were a less homogeneous group than male subjects from the public high school. The standard deviation for male subjects from the public high school indicated that this group was less homogeneous on the religious scale than male subjects from the Roman Catholic high school. Standard deviations varied from 4.8 for male subjects from the Roman Catholic high school on the political scale to 11.4 for male subjects from the public high school on the religious scale.

Scores ranged from 23 on the aesthetic scale to 63.5 on the theoretical scale for male subjects from the public high school and from 18 on the aesthetic scale to 63 on the religious scale for male subjects from the Roman Catholic high school. Examples of score ranges were 37 to 63.5 for males from the public high school and 28 to 54 for males from the Roman Catholic high school on the theoretical scale. On this same scale the standard deviations were 7.2 for males from the public high school and 6.7 for males from the Roman Catholic high school.

Females. There were nineteen female subjects from the public high school, nineteen from the Roman Catholic high school and 28 from the protestant high school. Table V presents the means and standard deviations for these groups. Table VI gives the deviations of mean value scores of females from the Roman Catholic high school and the protestant high school as compared with the mean value scores of females from the public high school.

The mean scores for all groups on each scale were similar. The greatest difference shown in Table VI in the mean value scores was 3.1 in favor of female subjects from the protestant high school as compared with those from the public high school on the political scale. No difference was found in the mean score for female subjects from the public high school and the Roman Catholic high school on the religious scale. Mean scores varied from 35.9 for females from the Roman Catholic high school on the economic scale to 48.4 for female subjects from the public high school and Roman Catholic high school on the religious scale.

Standard deviations indicated that the female subjects were relatively homogeneous as far as their values are concerned on the economic, social, political and religious scales. On the theoretical scale the female subjects from the public high school were more homogeneous than female subjects from the other two schools. On the aesthetic scale the female subjects from the protestant high school were less homogeneous than female subjects from the other two schools.

Scores ranged from 26 on the theoretical scale to 55 on the religious scale for females from the public high school; from nineteen on the social scale to 61 on the aesthetic scale for female subjects

TABLE V
MEANS AND STANDARD DEVIATIONS OF HIGH SCHOOL SENIOR
FEMALES BY TYPE OF SCHOOL

Type of School	Number		Theoretical	Economic	Aesthetic	Social	Political	Religious
Public	19	M.	37.3	36.3	40.3	41.1	36.6	48.4
		S.D.	4.8	6.5	8.6	6.2	5.9	5.9
Roman Catholic	19	M.	36.6	35.9	40.2	41.4	37.6	48.4
		S.D.	7.0	5.6	7.6	7.6	5.1	7.4
Protestant	28	M.	37.5	36.8	38.5	39.9	39.5	47.8
		S.D.	6.8	7.4	11.5	7.8	7.5	8.0

TABLE VI

DIFFERENCES BETWEEN MEAN VALUE SCORES OF ROMAN CATHOLIC
HIGH SCHOOL AND PROTESTANT HIGH SCHOOL FEMALES
AS COMPARED WITH PUBLIC HIGH SCHOOL FEMALES

	Differences between mean of public high school students and mean of Roman Catholic high school student	Differences between mean of public high school students and mean of protestant high school students
Theoretical	0.7	*0.2
Economic	0.4	*0.5
Aesthetic	0.1	1.8
Social	*0.3	1.2
Political	*1.0	*2.9
Religious	0.0	0.6

An asterisk () indicates a mean score higher than a mean score attained by public high school females; public high school females were higher in the remainder.

from the Roman Catholic high school; and from 22 on the economic scale to 59 on the religious scale for female subjects from the protestant high school. Examples of score ranges on one scale were 29 to 54 for female subjects from the public high school, 33 to 61 for female subjects from the Roman Catholic high school and 22 to 52.5 for female subjects from the protestant high school on the aesthetic scale. On the same scale the standard deviations were 8.6 for female subjects from the public high school, 7.6 for female subjects from the Roman Catholic high school and 11.5 for female subjects from the protestant high school.

III. INTERPRETATIONS

It is difficult to state definite reasons for a mean value score for a group. Only probable reasons for a certain group's mean score can be given.

Sex Differences Males. The mean scores for male subjects, as a group, on the theoretical, economic and political scales were higher than mean scores for females on these scales. Perhaps these scales represent interests which are expected to appeal to men. Sex role identification could be indicated by value scores.

Female subjects, as a group, had higher mean scores on the aesthetic, social and religious scales than did the male subjects. These scales probably represent those things which may be expected to be of interest to females. In this culture they may be expected to be more concerned with the welfare of others, to have a greater appreciation of beauty and to be more expressive in their religion than males. The training they have received as females would seem to influence their

value scores.

Standard deviations indicate considerable difference in the homogeneity of the values of the male and female subjects. Influences from the home, friends and school could have had some relationship to these differences.

School Differences. Male subjects from the public high school scored higher on the theoretical and economic scales than did male subjects from the Roman Catholic high school. Persons scoring high on the theoretical scale are supposedly interested in the discovery of the truth.²⁶ The opportunity for a wider course selection in the public high school than in the Roman Catholic high school could have had some influence on the higher theoretical mean score. On the other hand students may select schools on basis of values. The higher economic mean scores for public high school seniors could be influenced by wider economic home backgrounds found in the public high school than in the Roman Catholic high school.

The mean scores for male subjects from the Roman Catholic high school on the social and religious scales were higher than the mean scores for male subjects from the public high school. A person scoring higher on the social scale is interested in others.²⁷ The religious training received each day by students enrolled in the Roman Catholic high school probably had some influence on the social and religious scales.

Mean scores on the aesthetic and political scales were similar.

Public high school males were relatively homogeneous with

²⁶Allport and Vernon and Lindzey, loc. cit.

²⁷Ibid.

respect to scores on the social scale (s.d. = 4). They were most heterogeneous on the religious scale (s.d. = 11.4). Roman Catholic high school males were relatively homogeneous with respect to scores on the political scale (s.d. = 4.7) and most heterogeneous on the economic and aesthetic scales (s.d. = 8.8).

Females. There were virtually no differences in the mean value scores for female subjects from the three schools. It should be noted that there were only nineteen subjects from the public high school and nineteen from the Roman Catholic high school while there were 28 from the protestant high school. This difference in numbers may have had some effect on the mean scores.

Standard deviations varied. Public high school females were relatively homogeneous with respect to scores on the theoretical scale (s.d. = 4.8), Roman Catholic high school females on the political scale (s.d. = 5.1), and protestant high school females on the theoretical scale (s.d. = 6.8). Public high school females were most heterogeneous on the aesthetic scale (s.d. = 8.5), Roman Catholic high school females on the aesthetic and social scales (s.d. = 7.6) and the protestant high school females on the aesthetic scale (s.d. = 11.5). The different home training, schools, friends and church associations would seem to influence this variation in the standard deviations.

IV. SUMMARY

Sex Differences. The mean scores for male subjects on the theoretical, economic and political scales were higher than the mean scores for female subjects. The mean scores for females on the social, aesthetic and religious scales were higher than the mean scores for male

subjects on these scales. Male subjects were a less homogeneous group than were females on the theoretical, economic, aesthetic and religious scales as indicated by the standard deviations. Females were less homogeneous than were male subjects on the social and political scales.

School Differences. The mean scores for male subjects from the public high school on the theoretical and economic scales were higher than the mean score for male subjects from the Roman Catholic high school. The mean scores for male subjects from the Roman Catholic high school on the social and religious scales were higher than mean scores for males from the public high school. The mean scores for both groups were similar on the aesthetic and political scales. The standard deviations were similar on all scales.

The mean scores for females on all scales were similar. The standard deviations varied on each scale for all groups.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The home, school, church and community in which an adolescent lives influences the value patterns which are being formed during adolescence. Because of the changes and challenges to these values which have long been associated with these institutions, it is important for those who influence the value patterns of adolescents to understand to some extent how these patterns are formed. Research indicates that the value patterns seem to be related to sex and type of high school attended. The question arises as to whether this is true in Raleigh, North Carolina.

I. THE RESEARCH PROBLEM

Values may be objectives or states of affairs. To some, values may be goals of actions and may be used in the selection of the means for obtaining these goals.

Studies made by a number of different researchers concerning the values of adolescents show:

1. Teachers and students have similar value patterns.
2. Value patterns of students enrolled in a public high school, a private high school and a religious high school differ.
3. Students in different socio-economic situations were found to have different value patterns as did the

college bound student and the non-college bound student.

4. The values of female adolescents change slightly ahead of male adolescents.
5. On the Allport-Vernon-Lindzey Study of Values high school male subjects as a group tend to score higher on the theoretical, economic and political scales than females. Female high school subjects as a group tend to score higher on the aesthetic, social and religious scales than males.

The groups used in these studies were from geographical locations other than Raleigh, North Carolina.

It was the purpose of this study to answer the following questions relative to subjects in three Raleigh, North Carolina high schools:

1. What differences exist in the values of high school senior males and females?
2. What differences exist in the values of high school senior males and females enrolled in a public high school, a Roman Catholic high school and females in a protestant high school?

II. PROCEDURES

For the present study, the 1951 revision of the Allport-Vernon-Lindzey Study of Values was used as the measuring instrument. The six values on this scale are the theoretical, economic, aesthetic, social, political and religious. High school senior males and females from a public high school, a Roman Catholic high school and females from a

protestant high school served as subjects for the study. All schools were located in Raleigh, North Carolina.

The means and standard deviations were found for each value for the subjects by sex and the type of school in which they were enrolled. The ranges of scores for each value for each group was noted.

III. FINDINGS

Findings showed that the mean scores for males as a group on the theoretical, economic and political scales were higher than mean scores for females as a group on these same scales. Mean scores for females as a group on the social, aesthetic and religious scales were higher than mean scores for males on these same scales. Standard deviations indicate that the female subjects were a more homogeneous group than males on all scales except the social and political scales.

Mean scores for male subjects from the public high school on the theoretical and economic scales were higher than the mean score for male subjects from the Roman Catholic high schools. The mean scores for male subjects from the Roman Catholic high school were higher than the mean scores for male subjects from the public high school on the social and religious scales. Mean scores for both groups were similar on the aesthetic and political scales. Standard deviations were similar on all scales for both groups.

Mean scores for female subjects from the three schools were similar. The standard deviations varied somewhat.

IV. CONCLUSIONS

The following conclusions were made after the means and standard deviations were computed for the subjects according to sex and the type of school they attended:

1. The findings were consistent with findings of other studies using the Allport-Vernon-Lindzey Study of Values and using high school seniors as subjects.
2. Standard deviations indicated that male subjects were a more homogeneous group than female subjects.
3. Mean scores for the subjects indicate that value scores are probably influenced by sex and the school.
4. Findings for the subjects in this study were similar to those in other geographical locations.

Recommendations for further study. In order to have a better understanding of the value patterns of adolescents, studies concerning the factors which influence their values are needed. The following suggestions may be helpful:

1. It would be desirable to study whether the value patterns of teachers and pupils are similar using the Allport-Vernon-Lindzey Study of Values. Prince has done this type of study using the Differential Values Inventory.
2. It would be helpful to study the values of college bound students (taking college preparatory courses) to determine whether they differ from the values of students who do not plan to attend college using the Study of Values. Prince has done this type of study using the Differential

Values Inventory.

3. Many schools offer Marriage and Family Life courses. It would be helpful to learn if the values of students enrolled in these courses vary during the year as compared to students who are not enrolled in these courses.
4. A study of the values of students living in rural, urban and metropolitan areas could furnish helpful information concerning the effect of living areas on values.
5. Before doing further study concerning the values of high school students, the author recommends that tests concerning values, such as Differential Values Inventory, be compared to the Allport-Vernon-Lindzey Study of Values.

BIBLIOGRAPHY

A. 1933

- Wells, Robert J. *Psychological Tests and Measurements*. New York: McGraw-Hill, 1933.
- Wells, Robert J. *Tests of Intelligence*. New York: McGraw-Hill, 1933.

B. 1934

- Wells, Robert J. "Relations Between Personal Values and Academic Achievement," *Journal of Educational Research* 26 (September, 1934), 241-244.
- Wells, Robert J. "Family Diagnosis: Variations in Moral Values of Family Systems," *Journal of Educational Research* 26 (February-March, 1934), 70-74.
- Wells, Robert J. "Stability Level and Differential Test Performance: A Longitudinal Study of the Study of Values," *Journal of Educational Research* 26 (February, 1934), 6-10.
- Wells, Robert J. "Symptoms: The Development of Moral Values in Children - A Development of Adolescent Value-Systems," *Journal of Educational Research* 26 (January, 1934), 1-10.
- Wells, Robert J. and Charles E. Wells. "Changes in Values and Attitudes During the Family," *Journal of Educational Research* 26 (November, 1934), 505-509.
- Wells, Robert J. "Student Value Judgments in Public, Religious, and Private Schools," *The Public Schools* 41 (May, 1934), 305-307.
- Wells, Robert J. "Values, Grades, Achievement and Group Choice of High School Students," *The Elementary School Journal* 40 (April, 1934), 270-273.
- Wells, Robert J. and Nicholas Vignone. "Studies of Values in Six Secondary Schools on the Allport-Post-Vignone Study of Values," *Educational Research Bulletin* 74 (July, 1934), 77-80.

BIBLIOGRAPHY

A. BOOKS

- Havighurst, Robert J. Developmental Tasks and Education. New York: Longmans, Green and Company, 1952.
- Spranger, Edward. Types of Men. Trans. P. J. W. Pigors. New York: Stechert Hafner Incorporated, 1928.

B. PERIODICALS

- Battle, Haron J. "Relations Between Personal Values and Scholastic Achievements," Journal of Experimental Education, 26 (September, 1951), 27-41.
- Kluckhorn, Florence. "Family Diagnosis: Variations in Basic Values of Family Systems," Social Casework, 39 (February-March, 1958), pp. 36-72.
- Levy, Jerome. "Readability Level and Differential Test Performance: A Language Revision of the Study of Values," Journal of Educational Psychology, 49 (February, 1958), 6-12.
- Morris, J. F. "Symposium: The Development of Moral Values in Children - II Development of Adolescent Value-Judgments," British Journal of Educational Psychology, 28 (January, 1958), 1-14.
- Nelson, Lowry and Charles E. Ramsey. "Changes in Values and Attitudes Toward the Family," American Sociological Review, 21 (November, 1956), 605-609.
- Prince, Richard. "Student Value Judgments Do Differ In Public, Religious, and Private Schools," Phi Delta Kappan, 41 (May, 1959), 305-307.
- Prince, Richard. "Values, Grades, Achievement and Career Choices of High School Students," The Elementary School Journal, 60 (April, 1960), 376-390.
- Traxler, Arthur E. and Nicholas Vicchione. "Scores of Seniors In Six Secondary Schools on the Allport-Vernon-Lindzey Study of Values," Educational Records Bulletin, 74 (July, 1959), 75-89.

C. OTHER MATERIALS

Allport, Gordon, Philip Vernon, and Gardner Lindzey. Manual - Study of Values. Boston: Houghton Mifflin Company, 1951.

Allport, Gordon, Philip Vernon, and Gardner Lindzey. Study of Values. Boston: Houghton Mifflin Company, 1951.

APPENDIX

TABLE VII
 SCORES FOR THE PUBLIC HIGH
 SCHOOL - MALES

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Poli- tical	Reli- gious
1	58	36	30	36	41	39
2	51	40	53	29	41	26
3	43	38	40	34	37	48
4	48	48	25	36.5	40	42.5
5	42	26	45	32	34	61
6	40	32	34	33	38	63
7	43	50	23	39	49	36
8	48	59	34.5	29	39.5	36
9	49	37	38	30	53	33
10	63.5	39.5	34	28	43.5	31.5
11	37	48	30	40	41	44
12	48	52	34	30	49	27
13	47	55	23	37	40	38

TABLE VIII
SCORES FOR PUBLIC HIGH SCHOOL - FEMALES

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Poli- tical	Reli- gious
1	39	33	47	41	33	47
2	32	33	44	41	39	51
3	40	38	30	53	32	47
4	41	55	31	34	44	35
5	38	41	29	42	43	47
6	33	32	54	43	33	45
7	41	33	50	38	27	51
8	40	40	49	32	41	38
9	41	38	38	37	42	44
10	32	40	42	38	38.5	49.5
11	40	36	31	38	45	50
12	41	34	45	32	33	55
13	33	20	54	45	36	52
14	26	36	49	52	24	53
15	40	37	35	43	35	50
16	33	38	38	53	36	42
17	33	33	37	40	42	55
18	40.5	38.5	31.5	39	41	49.5
19	47	34	31	41	31	58

TABLE IX
SCORES OF ROMAN CATHOLIC HIGH SCHOOL MALES

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Poli- tical	Reli- gious
1	41	37	49	40	29	44
2	37	54	18	37	47	47
3	42	38	43	45	35	37
4	41	44	38	31	46	40
5	38	37	29	50	37	49
6	52	34	23	37	45	49
7	36	24	52	41	43	44
8	28	31	37	49	46	49
9	34	40	24	42	45	55
10	40	44	24	42	44	46
11	42	38	22	45	38	55
12	54	58	31	31	40	26
13	47	40	38	31	45	39
14	35	36	33	42	43	51

TABLE X
SCORES OF ROMAN CATHOLIC HIGH SCHOOL FEMALES

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Poli- tical	Reli- gious
1	48	29	36	34	46	47
2	44	39	41	41	39	36
3	42	38	30	40	34	56
4	29	39	33	50	42	47
5	26	31	47	42	39	55
6	44	35	39	44	42	36
7	36	36	39	40	38	51
8	39	42	61	19	43	36
9	43	32	39	43	33	50
10	34	31	34	45	38	58
11	40	40	37	47	34	42
12	29	48	42	36	40	45
13	35	35	45	45	40	40
14	32	39	34	47	36	52
15	42	31	56	34	25	52
16	44	33	38	42	30	53
17	36	38	36	43	33	54
18	25	42	39	38	43	53
19	27	24	38	56	39	56

TABLE XI
SCORES OF PROTESTANT HIGH SCHOOL FEMALES

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Poli- tical	Reli- gious
1	26.5	39.5	34.5	42.5	45.5	51.5
2	29	34	31	47	51	48
3	35	34	48	25.5	50.5	47
4	27	38	36	58	32	49
5	47	39	31	46	29	48
6	42	54	22	32	38	52
7	35	44	40	38	29	54
8	43	32	46	28	47	44
9	25	33	44	40	44	54
10	46	37	34	44	29	52
11	33.5	37	34.5	45	39.5	50.5
12	35	43	46	39	45	32
13	42	33	50	49	30	36
14	45	37	30	38	37	53
15	36	33	42	34	51	54
16	39	39	34	40	33	55
17	39.5	32	52	49	43.5	24
18	42	22	39.5	56	31	49.5
19	37	28	34	40	42	59
20	38	41	36	40	33	52
21	38.5	50.5	36	30	46.5	38.5
22	35.5	29.5	45	40	37	53

TABLE XI (continued)

Student No.	Theo- retical	Eco- nomic	Aes- thetic	Social	Politi- cal	Reli- gious
23	47	22	38	39	45	49
24	27	49	30	31	55	48
25	40	37	24	39	48	52
26	48	44	48	29	33	38
27	39	32	40	40	34	55
28	34.5	37	52.5	38.5	38.5	39